AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method ~~Method~~ for producing a ~~biological~~ biologically active blood serum comprising ~~the steps of~~:

a) electrostimulating ~~electrostimulation of~~ a non-human animal,

b) withdrawing ~~withdrawal of~~ blood from said animal,

c) isolating ~~isolation of~~ serum from said blood, and

d) gamma irradiating ~~irradiation of~~ said serum.

2. (Currently Amended) The method ~~Method~~ according to claim 1, wherein the non-human animal is selected from the group consisting of mammals and birds.

3. (Currently Amended) The method ~~Method~~ according to claim 2, wherein the bird is selected from the group consisting of chicken, duck ~~dug~~, goose, ostrich, and quail.

4. (Currently Amended) The method ~~Method~~ according to ~~any one of claims 1 to 3~~ claim 1, wherein ~~in step a)~~ the head, the neck, the body, ~~and/or~~ one or more limbs, or a combination thereof, of the non-human animal ~~preferably the head~~ is (are) electrostimulated ~~electro-stimulated~~.

5. (Currently Amended) The method ~~Method~~ according to ~~any one of claims 1 to~~ 4 claim 1, wherein a) ~~the electro-stimulation~~ is carried out for a time period of between 1 and 60 seconds~~, preferably between 1 and 30 seconds, and more preferably between 2 and 10 seconds~~.

6. (Currently Amended) The method ~~Method~~ according to ~~any one of claims 1 to 5~~ claim 1, wherein the non-human animal is electrostimulated ~~electro-stimulation is carried out~~ with a voltage in the range of between 50 V and 150 V~~, preferably 80 V to 120 V, and more preferably between 110 V and 120 V~~.

7. (Currently Amended) The method ~~Method~~ according to ~~any one of claims 1 to 6~~ claim 1, wherein the non-human animal is electrostimulated ~~the electro stimulation is carried out~~ with a current in the range of between 0.01 A and 0.4 A~~, preferably between 0.02 A and 0.1 A, and more preferably between 0.04 A and 0.06 A~~.

8. (Currently Amended) The method ~~Method~~ according to ~~any one of claims 1 to 7~~ claim 1, wherein the non-human animal is electrostimulated ~~the electro stimulation is carried out~~ with a frequency in the range of between 10 and 200 Hz~~, preferably in the range of between 20 to 100 Hz and more preferably in the range of between 45 to 55 Hz~~.

9. (Currently Amended) The method ~~Method~~ according to ~~any one of claims 1 to 8~~ claim 1, wherein said gamma irradiation ~~is administered with~~ provides an ~~adsorbed~~ absorbed radiation dose of between 15 to 35 kGy~~, preferably of between 20 and 30 kGy~~.

10. (Currently Amended) The method ~~Method~~ according to ~~any one of claims 1 to 9~~ claim 1, wherein the source of the gamma radiation is selected from the group consisting of ^{60}Co, ^{137}Cs, ^{67}Cu, ^{67}Ga, ^{111}In, ^{192}Ir, ^{99m}Tc and ^{170}Tm.

11. (Currently Amended) The method ~~Method~~ according to ~~any one of claims 1 to 10~~ claim 1, wherein the method further comprises ~~the step of~~ incubating said blood prior to ~~step~~ c).

12. (Currently Amended) The method ~~Method~~ according to ~~any one of claims 1 to 11~~ claim 1, wherein the method further comprises ~~the step of~~ lyophilization of said serum prior to ~~step~~ d).

13. (Currently Amended) The method ~~Method~~ according to ~~any one of claims 1 to 11~~ claim 1, wherein said blood is arterial blood, ~~and/or~~ venous blood, or a combination thereof.

14. (Currently Amended) A blood ~~Blood~~ serum produced ~~producible~~ according to the ~~a~~ method of ~~according to any one of claims 1 to 13~~ claim 1.

15. (Currently Amended) A pharmaceutical ~~Pharmaceutical~~ composition comprising a blood serum according to claim 14 and one or more pharmaceutically acceptable diluents; carriers; excipients, ~~including fillers, binders, lubricants, glidants, disintegrants, adsorbents~~; ~~and/or~~ preservatives; or a combination thereof.

16. (Currently Amended) The pharmaceutical ~~Pharmaceutical~~ composition according to claim 15, wherein the composition is formulated as a syrup, an infusion or injection solution, a tablet, a capsule, a ~~capslet~~ caplet, a lozenge, a liposome, a suppository, a plaster, a band-aid, a retard capsule, a powder, or a slow release formulation.

17. (Currently Amended) The pharmaceutical ~~Pharmaceutical~~ composition according to claim 15 ~~or 16~~, wherein the diluent is water, a buffer, a buffered salt solution or a salt solution.

18. (Currently Amended) The pharmaceutical ~~Pharmaceutical~~ composition according to ~~claims 15 to 17~~ claim 15, wherein the carrier is selected from the group consisting of cocoa butter and vitebesole.

19. (Currently Amended) A method of treating a disease or condition in a subject in need thereof, which disease or condition can be affected by an increase of cyclic adenosine monophosphoric acid contents in the brain of the subject, comprising administering to the subject the ~~Use of a~~ blood serum according to claim 14 ~~or of a pharmaceutical composition according to any one of claims 15 to 18 for the production of a medicament for the treatment of a disease or condition, which can be affected by an increase of cyclic adenosine monophosphoric acid contents in the brain of the subject requiring treatment~~ in an amount effective to treat the disease or condition.

20. (Currently Amended) A method of improving the cognitive skill, learning skill, or a combination thereof, in a subject in need thereof, comprising administering to the

subject the ~~Use of~~ a blood serum according to claim 14 ~~or of a pharmaceutical composition according to any one of claims 15 to 18 for the production of a medicament for the improvement of cognitive and/or learning skills in particular improvement of the long term memory~~ in an amount effective to improve the cognitive skill, learning skill, or a combination thereof, in the subject.

21. (Currently Amended) A method of treating seizure in a subject, comprising administering to the subject the ~~Use of a~~ blood serum according to claim 14 ~~or of a pharmaceutical composition according to any one of claims 15 to 18 for the production of a medicament for the treatment of seizures, in particular epileptic seizures~~ in an amount effective to treat the seizure in the subject.

22. (Currently Amended) A method of treating a nervous disease in a subject comprising administering the ~~Use of a~~ blood serum according to claim 14 ~~or of a pharmaceutical composition according to any of claims 15 to 18~~ in an amount effective to treat said nervous disease in the subject ~~for the production of a medicament for the treatment of nervous diseases~~.

23. (Currently Amended) A method of treating a proliferative disease or apoplexy in a subject, comprising administering the ~~Use of a~~ blood serum according to claim 14 ~~or of a pharmaceutical composition according to any one of claims 15 to 18 for the production of a medicament for the treatment of proliferative diseases and apoplexy~~ in an amount effective to treat the proliferative disease or apoplexy in the subject.

24. (Currently Amended) The method ~~Use~~ according to claim 23, wherein the proliferative disease is selected from the group consisting of malignomas of the gastrointestinal or colorectal tract, the liver, the pancreas, the kidney, the bladder, the thyroid, the prostate, the endometrium, the cervix, the ovary, the uterus, the testes, the skin, the oral cavity; melanoma; dysplastic oral mucosa; invasive oral cancers; small cell and non-small cell lung carcinomas; mammary tumors~~, in particular hormone dependent breast cancers and hormone independent breast cancers~~; transitional and squamous cell cancers; neurological malignancies ~~including neuroblastomas, gliomas, astrocytomas, osteosarcomas,~~

~~meningiomas~~; soft tissue sarcomas; hemangioamas and endocrinological tumors~~, in particular particular pituitary adenomas, pheochromocytomas, paragangliomas, haematological malignancies , in particular lymphomas and leukemia~~.

25. (Currently Amended) The method ~~Use~~ according to claim 23, wherein the proliferative disease comprises cells similar to the human T cell lymphoma cell line Jurkat, the human B cell lymphoma cell line Raj, the human melanoma cell line Bro, the human cervical cancer cell line HeLa, the human adenocarcinoma cell line MCF-7, the osteosarcoma cell line Mg63, the fibrosarcoma cell line HT1080, the neuroblastoma cell line IMR-32 and the hepatocarcinoma cell line HepG2.

26. (Currently Amended) The method of claim 19 ~~Use according to claims 19 to 25~~, wherein the blood serum ~~medicament~~ is administered to the ~~a~~ subject ~~in need of treatment~~ in an amount ranging from 50 to 150 mg/kg body weight~~, preferably ranging from 90 to 100 mg/kg body weight~~.